

# **[LIQUID CRYSTAL DISPLAY WITH A LOW DRIVING VOLTAGE]**

## **Abstract of Disclosure**

An LCD includes a first substrate having a first surface, and a second substrate having a second surface with a pixel region. The LCD further includes first and second electrodes. The second electrode has a first slit elongated along a first direction. In addition, a third electrode is formed above the second electrode, and a second slit elongated along the first direction is disposed on the third electrode. A plurality of anisotropic liquid crystal molecules with a negative dielectric constant are positioned between the first electrode and the third electrode. A first horizontal biased electric field is formed in the neighborhood of the second slit, the first horizontal biased electric field is perpendicular to the first direction, and the liquid crystal molecules are rotated to make the longitudinal axis of the liquid crystal molecules in the neighborhood of the second slit being in parallel to the first direction.

Figures



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100